Supporting Information

A series of novel Cadmium(II) coordination polymers with photoluminescence and ferroelectric properties based on zwitterionic ligand

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Contents

Table S1. Selected bond lengths /Å and angles /° for compound **1**.

Cd(1)-O(7)	2.260(2)	Cd(1)-O(6)	2.329(2)
Cd(1)-O(8)	2.341(2)	Cd(1)-O(9)	2.416(2)
C(1)-O(1)	1.230(3)	C(23)-O(3)	1.236(3)
C(4)-N(1)	1.350(3)	C(18)-N(2)	1.338(3)
O(9)- Cd(1)-O(8)	55.31(5)	O(5)- Cd(1)-O(6)	54.92(5)
O(3)- Cd(1)-O(4)	54.28(6)	O(9)- Cd(1)-O(5)	150.15(6)
O(1)-C(1)-O(2)	127.40(3)	N(1)-C(4)-C(3)	120.20(2)
C(9)-C(8)-C(13)	120.79(19)	N(2)-C(18)-C(19)	120.60(2)

Table S2. Selected bond lengths /Å and angles /° for compound **2**.

Cd(1)-O(10)	2.228(4)	Cd(2)-O(4)	2.256(3)
Cd(3)-O(8)	2.291(3)	P(1)-O(1)	1.528(3)
P(2)-O(5)	1.535(3)	P(2)-O(7)	1.546(3)
Cd(3)-O(3)	2.305(3)	P(2)-O(8)	1.536(3)
O(10)- Cd(1)-O(8)	164.72(1)	O(8)- Cd(1)-O(6)	96.51(1)
O(10)- Cd(1)-O(5)	87.76(1)	O(4)- Cd(3)-O(6)	91.52(1)
P(1)-O(1)-Cd(1)	127.06(2)	Cd(2)-O(4)-Cd(3)	100.13(1)
P(2)-O(7)-Cd(2)	132.68(2)	O(7)-P(2)-O(6)	108.78(2)

Table S3. Selected bond lengths /Å and angles /° for compound **3**.

Cd(1)-O(1)	2.285(7)	Cd(1)-O(15)	2.310(4)
Cd(2)-O(2)	2.299(7)	Cd(3)-O(11)	2.257(2)
N(1)-C(22)	1.491(1)	N(2)-C(32)	1.497(1)
C(9)-O(6)	1.228(1)	C(1)-C(2)	1.494(1)
O(17)- Cd(1)-O(15)	88.60(2)	O(9)- Cd(2)-O(23)	104.20(4)
O(2)- Cd(2)-O(1)	54.20(2)	O(11)- Cd(3)-O(14)	133.60(6)
O(1)-C(1)-O(2)	122.50(9)	N(1)-C(19)-C(18)	123.90(9)
O(17)-C(16)-C(17)	113.70(9)	C(21)-C(17)-C(16)	122.80(9)

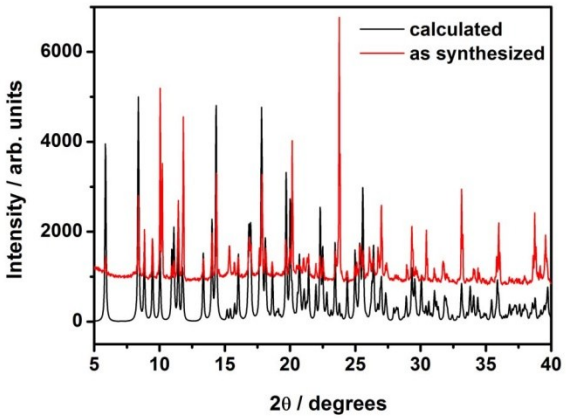

Figure S1 X-ray powder diffraction patterns of compound **1**.

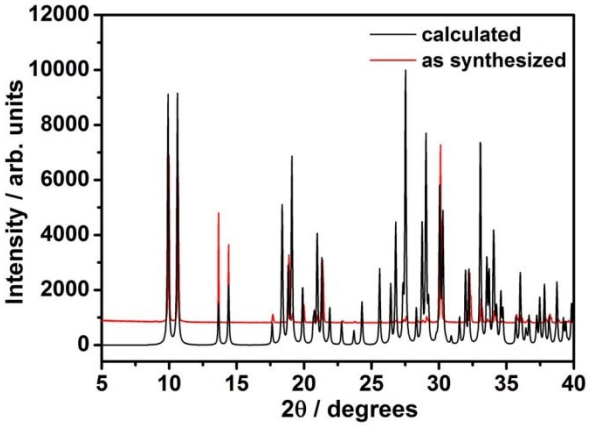

Figure S2 X-ray powder diffraction patterns of compound **2**.

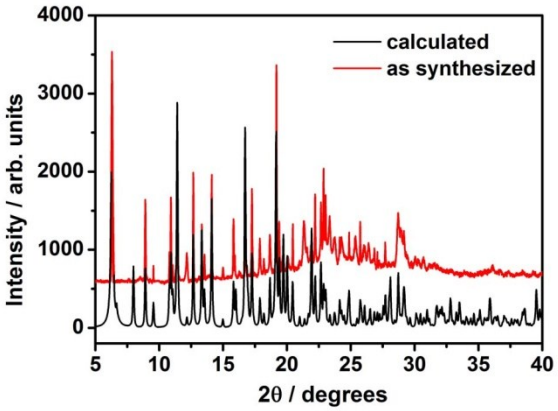

Figure S3 X-ray powder diffraction patterns of compound **3**.

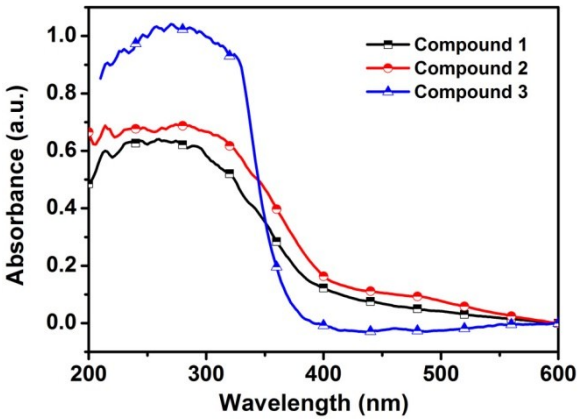

Figure S4 The solid-state UV-*vis* absorption spectra of compounds **1**-**3**.

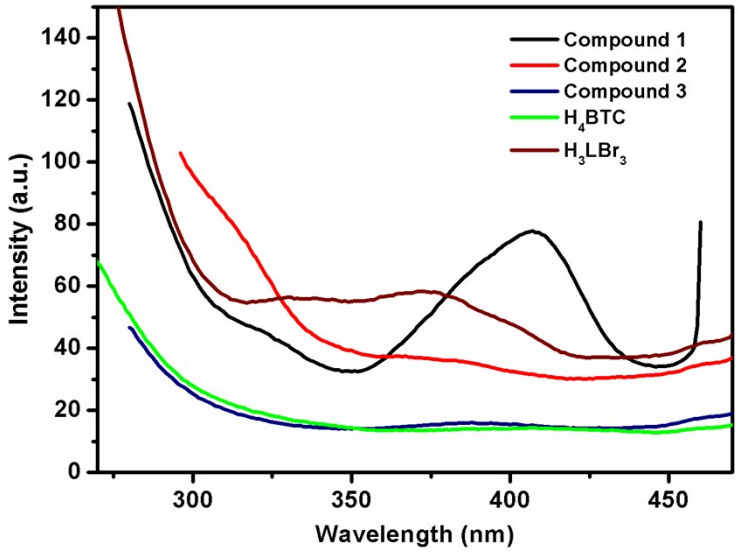

Figure S5 The excitation spectra of H_4BTC, H_3LBr_3 and compounds **1-3**.

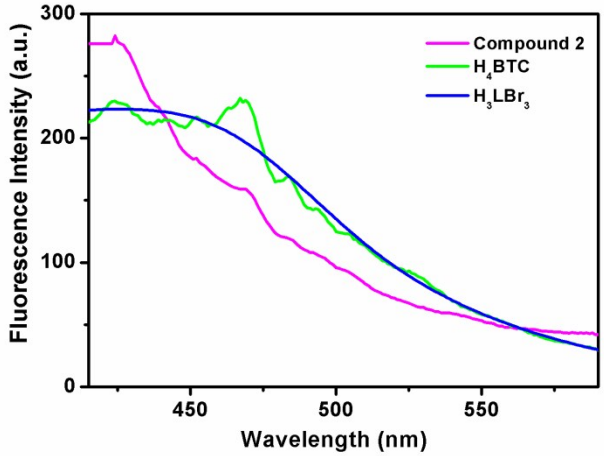

Figure S6 The solid luminescent spectra for H_4BTC, H_3LBr_3 and compound **2**.